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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/889,934	07/25/2001	Andre Kaup	1454.1068/RA	4716

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EXAMINER

VO, TUNG T

ART UNIT PAPER NUMBER

2613

6

DATE MAILED: 05/05/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/889,934

Applicant(s)

KAUP, ANDRE

Examiner

Tung T. Vo

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 03 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 15-25 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 15-25 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 5.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

DETAILED ACTION

Information Disclosure Statement

1. The information disclosure statement (IDS) submitted on 07/25/01 has been considered.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 15-21, and 25 are rejected under 35 U.S.C. 102(b) as being anticipated by Nishino et al. (US 5,268,755).

Re claims 15 and 25, Nishino discloses a system for transforming a picture area comprising a transformation unit (21, 24, and 25 of fig. 2) to perform a vertical transformation (25 of fig. 2) and horizontal transformation (21 of fig. 2) of the picture area; and

a decision unit (8 of fig. 2) to control said transformation unit to first perform the horizontal transformation (21 of fig. 2) then vertical transformation (25 of fig. 2) if the pictures area is present in a line interlacing method (col. 4, lines 38 through col. 5, line 32), and otherwise to first perform one of the vertical and horizontal transformations for which a correlation of pixels of the picture are is stronger (col. 6, line 4 through col. 7, line 17, see also elements 8, 245, 241, 244 and 25 of fig. 2).

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Re claim 16, Nishino further discloses wherein additional dimension is taken into account in the transformation (D of fig. 3B).

Re claim 17, Nishino further discloses wherein an additional transformation is carried out along with time (col. 7, lines 45-51, e.g. a kind of three-dimensional orthogonal transformation (inter-field sum and difference are one of orthogonal transformations in the direction of time).

Re claim 18, Nishino further discloses wherein a side information item containing the order of transformation is generated by the decision (x11-x18 of fig. 3A, and y11-y18 of fig. 3A, see also fig. 4, e.g. a zigzag scanning is performed in the scanning circuit 4 so that two-dimensional orthogonal transformation coefficients are arranged in the order from a two-dimensionally low frequency component to a two-dimensionally high frequency component, and the rearranged signal is sent to the coding circuit 4).

Re claims 19 and 20, Nishino further discloses the step of carrying out mirroring on 45-degree before either transformation (as defined in specification, [0050] of page 8, top left to bottom right); so that the vertical transformation follows from the horizontal transformation, the horizontal transformation follows the vertical transformation (fig. 3A, fig. 3B, and fig. 3C).

Re claim 21, Nishino further uses a coder (4 of fig. 2) for compression of picture data.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 22 and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nishino et al. (US 5,268,755) as applied to claims 1, and 17-18, and further in view of Sugiyama et al. (EP 0 586 225 A2).

Re claims 22 and 24, Nishino teaches all limitations above except a decoder for decompression of the picture area, and the transformation is a DCT transformation and an IDCT transformation, which is inversed thereof as claimed.

However, Sugiyama teaches a decoder (22 of fig. 8) for decompression of the picture area, and the transformation is a DCT transformation (2 and 3 of fig. 11) and an IDCT transformation (24 and 25 of fig. 11), which is inversed thereof. Therefore, taking the teachings of Nishino and Sugiyama as a whole, it would have been obvious to one of ordinary skill in the art to incorporate the teachings of Sugiyama into the system of Nishino to perform the same purpose of horizontally and vertically transformation using one of the DCT transformation for encoder and the IDCT transformation for the decoder. Doing so would reduce the noise caused by the quantization, so that that image quality can be further improved by reducing the encoding error as suggested by Sugiyama (page 10).

6. Claims 22 and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nishino et al. (US 5,268,755) as applied to claims 1, and 17-18, and further in view of Kata (US 5,706,246).

Re claims 22 and 23, Nishino teaches all limitations above except a decoder for decompression of the picture area according at least one of an MPEG standard and an H.26x standard as claimed.

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However, Katta teaches a decoder (15 of fig. 7) for decompression of the picture area according at least one of an MPEG standard and an H.26x standard (col. 3). Therefore, taking the teachings of Nishino et al. and Katta et al. as a whole, it would have been obvious to one of ordinary skill in the art to incorporate the teachings of Katta (15 of fig. 7 and col. 3) to perform the same purpose of decoding the picture area using an MPEG standard. Doing so would improve the quality image for displaying.

Conclusion

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Ueda et al. (US 5,175,618) discloses a compression method for interlace moving image signals.

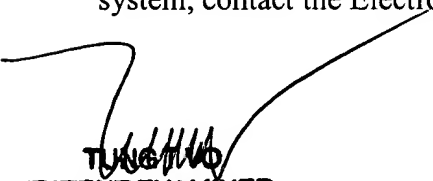
Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tung T. Vo whose telephone number is (703) 308-5874. The examiner can normally be reached on 6:30 AM - 3:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chris. Kelley can be reached on (703) 305-4856. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



TUNG T. VO
PATENT EXAMINER

T.Vo

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Examiner
Art Unit 2613